

**Tech Tips No 8a**  
**Looking after Ball and Roller Bearings.**

The fiat 500 and 126 have a mixture of sixteen ball and roller bearings; four on the front stub axle, four on the rear hub axle, six in the gearbox and two in the dynamo. This text will cover the wheel bearings; the gearbox and dynamo will be covered in a later text. How to check whether the wheel bearings are all right.

Jack up the car and spin the wheel and listen.

1. If it is a smooth spin with no rumble or cracking (you may hear a scrap of a brake shoe) the bearings are all right.
2. If there is a faint rumble you may have a small amount of wear on the inner and outer rings (when you strip the bearing down you have the orange peel effect on the outer ring). This bearing will carry on running for some time, but keep a check on it.
3. If there is a rumble with an occasional cracking sound. The bearing is starting to breakdown and needs to be changed. It will be already to do short trips but would not attempt to do long journeys.

The reason bearings breakdown it is not the running but the **lack of running** and other reason is the bearings have been fitted wrong and the bearing setting is wrong.

If a car is left on its the wheels for a long time without moving, the wheel bearings will gradually destroy them selves, the roller bearing will crumble in that spot. This is called "BRINELLING". When the bearing starts to move again the rough spot on the roller will start and tear at the inner and outer races, and then gradually the bearing will break down.

In the engineering business, when a machine is kept in storage, each month the machine is turned through 360 deg, so that the bearings do not Brinnell.

So with a 500 or 126 wheel bearings, if you can jack up the car onto four stands then each month turn the wheel one complete revolution, this will stop "BRINNELING" and it will save the bearings.

**Bearing information.**

500 Front wheel bearing (back)	Size	OD 43 X ID 20 X Th.11
500 Front wheel bearing (front)	Size	OD 35 X ID 15 X Th. 8.5
500 Front wheel bearing oil seal.	Size	OD 43 X ID 30 X Th. 8
126 Front wheel bearing (back)	Size	OD 52 X ID 23 X Th 12.7
126 Front wheel Bearing (front)	Size	OD 42 X ID 15 X Th 14
500-126 Rear wheel bearing (back and front)	Size	OD 52 X ID 26 X Th. 13
500-126 Bearing oil seal. (back and front)	Size	OD 52 X ID 26 X Th. 10
126 Alternator bearings (MAGNETI-MARELLI)		
Bearing next to the fan	Size	OD 40 X ID 17 X Th.12
Bearing next to the pulley	Size	OD 35 X ID 15 X Th. 14

From the list above you can see the smallest bearing is the front bearing (front). You will find that this bearing will start and break up first then the rear bearing will follow. So if you can quickly change the front bearing you will get more life out of the back bearing.

**HOW TO CHANGE REAR HUB BEARINGS SEE TECH TIPS 10.**

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